

Dvl-2 (F-13): sc-30873

BACKGROUND

Mammalian homologs of the *Drosophila* dishevelled (Dsh) gene have been identified, including Dvl-1, Dvl-2 and Dvl-3. The mammalian dishevelled proteins contain three homologous domains, two of which are unrelated to any other known protein. The third region is homologous to the discs-large homology domain of *Drosophila* discs-large-1, a tumor suppressor protein. Like their *Drosophila* counterpart, the dishevelled proteins are thought to be involved in embryogenesis. Overexpression of Dvl-1 has been shown to inhibit the phosphorylation of Tau by GSK-3 β . This finding may prove to be important in Alzheimer's studies, which have shown that Tau is hyperphosphorylated. In *Drosophila*, Dsh is a component of the frizzled signaling pathway. Both mammalian dishevelled and frizzled proteins are components of the Wnt signaling pathway.

REFERENCES

1. Sussman, D.J., et al. 1994. Isolation and characterization of a mouse homolog of the *Drosophila* segment polarity gene dishevelled. *Dev. Biol.* 166: 73-86.
2. Krasnow, R.E., et al. 1995. Dishevelled is a component of the frizzled signaling pathway in *Drosophila*. *Development* 121: 4095-4102.
3. Yang-Snyder, J., et al. 1996. A frizzled homolog functions in a vertebrate Wnt signaling pathway. *Curr. Biol.* 6: 1302-1306.
4. Pizzuti, A., et al. 1996. Human homologue sequences to the *Drosophila* dishevelled segment-polarity are deleted in the DiGeorge syndrome. *Am. J. Hum. Genet.* 58: 722-729.
5. Tsang, M., et al. 1996. Isolation and characterization of mouse dishevelled-3. *Dev. Dyn.* 207: 253-262.
6. Pizzuti, A., et al. 1996. cDNA characterization and chromosomal mapping of two human homologues of the *Drosophila* dishevelled polarity gene. *Hum. Mol. Genet.* 5: 953-958.
7. Wagner, U., et al. 1997. Overexpression of the mouse dishevelled-1 protein inhibits GSK-3 β -mediated phosphorylation of Tau in transfected mammalian cells. *FEBS Lett.* 411: 369-372.

CHROMOSOMAL LOCATION

Genetic locus: DVL2 (human) mapping to 17p13.1; Dvl2 (mouse) mapping to 11 B3.

SOURCE

Dvl-2 (F-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Dvl-2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-30872 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Dvl-2 (F-13) is recommended for detection of Dvl-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Dvl-2 (F-13) is also recommended for detection of Dvl-2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Dvl-2 siRNA (h): sc-35230, Dvl-2 siRNA (m): sc-35231, Dvl-2 shRNA Plasmid (h): sc-35230-SH, Dvl-2 shRNA Plasmid (m): sc-35231-SH, Dvl-2 shRNA (h) Lentiviral Particles: sc-35230-V and Dvl-2 shRNA (m) Lentiviral Particles: sc-35231-V.

Molecular Weight of Dvl-2: 92 kDa.

Positive Controls: BT-20 cell lysate: sc-2223, F9 cell lysate: sc-2245 or NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Dvl-2 (D-6): sc-390303** or **Dvl-2 (C-2): sc-271319**, our highly recommended monoclonal alternatives to Dvl-2 (F-13). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Dvl-2 (D-6): sc-390303**.